Rain Barrel

What is a rain barrel?

A rain barrel is a system that collects and stores rainwater from your roof that would otherwise be lost to runoff and diverted to storm drains and streams. Usually, a rain barrel is composed of a 55 gallon drum, a vinyl hose, PVC couplings, a screen grate to keep debris and insects out, and other off-the-shelf items. A rain barrel is relatively simple and inexpensive to construct and can sit conveniently under any residential gutter down spout.

Can I remove the rain barrel(s) on my property?

No, you cannot remove these facilities if they have been required by the County. Harford County maintains a database for all required structures including rain barrels.

Preventative Maintenance

Performing preventative maintenance regularly will prevent long term damage and reduce costs. It is recommended to remove leaves and debris from roof gutters, debris filter, overflow pipe, fittings, spigot, etc.

Basic Maintenance ...

- ✓ Check the entire system (gutters, debris filter, overflow pipe, fittings, spigot, etc.) to ensure functioning properly.
- ✓ Place gutter guards and/or screens on top of roof downspouts and on top of barrel to prevent leaves and sediment from entering the barrel.
- ✓ Remove leaves and other debris from the screen at the top of the barrel, the overflow pipe, and the roof gutters.
- ✓ Regularly use water collected in the rain barrel between rain events to make sure there is enough room for the next rain event.
- ✓ Make sure the filter screen is intact and fastened to keep out mosquitoes.

Seasonal Maintenance ...

- ✓ Disconnect and drain the rain barrel from the downspouts during winter months.
- ✓ Open the rain barrel spigot if you plan to be away from your home for an extended period of time allowing the water to flow away from the home's foundation.
- ✓ Clean the barrel using non-toxic substance such as vinegar to remove residue/algae.
- ✓ Clean out downspouts and roof gutters for the most effective mosquito control. If you find mosquitoes in your rain barrel, you can use dunks. A quarter dunk added monthly may be adequate for a 55-gallon rain barrel.

As a reminder...

- ✗ Do not leave water in the rain barrel for long periods of time.
- ✗ Do not drink the water or use the water inside your home, even for pets. This is only non-potable water.
- ✗ Do not let kids play in or around a rain barrel.
- ✗ Do not spray the water directly on vegetables or plants as it may contain bacteria from the roof.
- ✗ Do not let the barrel foundation become un-level or unstable.
- ✗ Do not empty onto impervious surfaces.
- ✗ Do not obstruct access to the rain barrel.

How often does Harford County perform maintenance inspections and how will I know if my rain barrel is functioning?

Harford County is required to perform an inspection every 3 years. If maintenance issues are found in need of repair, an inspection report will detail those items to be addressed within 30 days from the date of the notice.

Who is responsible for the maintenance?

As the property owner, you are responsible for all maintenance of your rain barrel.

What are the advantages of a rain barrel?

Lawn and garden watering make up nearly 40% of total household water use during the summer. A rain barrel collects water and stores it for when you need it most. It provides an ample supply of free "soft water" to homeowners, containing no chlorine, lime or calcium making it ideal for gardens, flower pots, and car and window washing.

Recommended Schedule For Typical Maintenance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Basic Maintenance				✓	✓	✓	✓	✓	✓	✓	✓	
Seasonal Maintenance			✓								✓	
Monitoring				✓	✓	✓	✓	✓	✓	✓	✓	

Troubleshooting

Symptom	***Possible Cause***	***Solution***
Rain barrel is overflowing	Too full before the rain event or is too small for roof area.	Empty the rain barrel between storm events. If more than one barrel is needed for your roof area, install additional barrels in a series by connection. Each barrel should have its own spigot.
Cracks or damage	The rain barrel contained water and temperatures dropped below freezing.	Empty the rain barrel prior to winter. Repair or replace rain barrel.
Forgetting to drain barrel before a storm	Rain events may occur frequently.	Connect a soaker hose to the outlet to direct the slow release of water to your garden or yard area.
Rain barrel is leaning	Foundation has shifted.	Level the foundation and barrel.

Harford County can answer your questions and provide additional guidance on how to maintain your rain barrel.

Email: cjoyce@harfordcountymd.gov * Telephone: 410.638.3563
Website: www.harfordcountymd.gov/dpw/engineering/WaterResources/

What size rain barrel do I need for each downspout for my building?

FORMULA:

Roof Area (sq. ft.) x 0.95 x 7.48 gal/cu. ft.
x 1 ft./12 inch x avg. rainfall (0.36 inches)

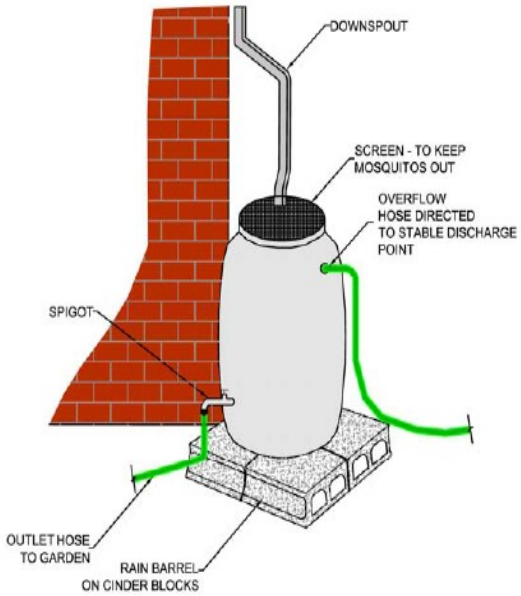
Avg. rainfall = 44.21 inches/year
Avg. 22 rain events/year = 0.36 inches/event

EXAMPLE:

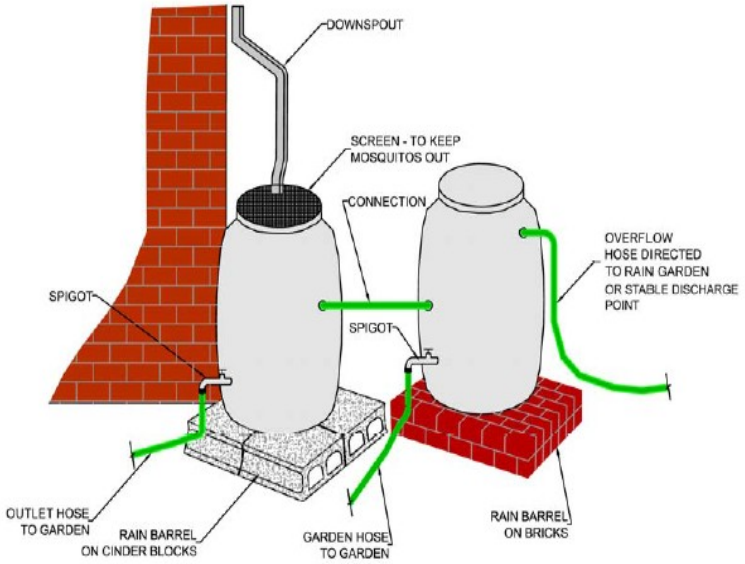
Eg. 30x40 house with 4 downspouts
(15x20 to each downspout)

(15x20) = 300 sq. ft. x .95 x 7.48 x
0.36/12 = 63.95 gallon rain barrel(s)
per downspout

SINGLE RAIN BARREL



INTERCONNECTED RAIN BARRELS



Drawings taken from:
2000 MD Stormwater Design Manual
Chapter 5. Environmental Site Design
Nonstructural a nd Micro-Scale Practices